

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

NORTHWEST BIOTHERAPEUTICS, INC.,

Plaintiff,

v.

CANACCORD GENUITY LLC, CITADEL
SECURITIES LLC, G1 EXECUTION
SERVICES LLC, GTS SECURITIES LLC,
INSTINET LLC, LIME TRADING CORP.,
AND VIRTU AMERICAS LLC,

Defendants.

Case No. 1:22-cv-10185 (GHW) (GS)

**DEFENDANTS' JOINT MEMORANDUM OF LAW IN SUPPORT OF
MOTION TO DISMISS SECOND AMENDED COMPLAINT**

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Defendants respectfully submit this memorandum of law in support of their motion to dismiss Plaintiff Northwest Biotherapeutics, Inc.’s (“NWBO”) Second Amended Complaint (“SAC,” ECF 150).

PRELIMINARY STATEMENT

As described in this Court’s Report & Recommendation (“R&R,” ECF 137), NWBO’s theory of market manipulation rests on the premise that Defendants engaged in spoofing “by purchasing NWBO stock at artificially depressed prices and, once the market rebounded, selling it at a higher price.” Necessary to this premise, as this Court likewise accepted, is that NWBO’s stock traded in an efficient market—meaning, once the alleged spoof orders ceased, the price immediately corrected, allowing Defendants to sell shares at a profit mere seconds after their purchases. Accordingly, the Court dismissed the First Amended Complaint (“FAC”) because the “reversion of the stock price in a brief period of time, as alleged in the FAC,” left NWBO unable to connect Defendants’ alleged spoofing to any loss.

NWBO’s SAC fares no better in bridging this loss causation gap. The SAC attempts to plead loss causation under separate theories of “temporal proximity” and “long-term” negative price impact, as required by the Second Circuit in *Gamma Traders - I LLC v. Merrill Lynch Commodities, Inc.*, 41 F. 4th 71, 80-81 (2d Cir. 2022). Accepting NWBO’s spoofing allegations as true (which, to be clear, they are not), neither theory can be reconciled with the SAC’s own rapid reversion allegations, and neither theory adequately pleads loss causation. Indeed, just weeks ago, District Judge Dale E. Ho dismissed identical claims in *Phunware v. UBS Secs. LLC*, 2024 WL 1465244 (S.D.N.Y. Apr. 4, 2024), holding that the very allegations of rapid price reversion that permitted a finding of scienter foreclosed plaintiff’s attempts to plead loss causation.

As to its “temporal proximity” theory, NWBO simply identifies with an asterisk a handful of “Pricing Dates” on which an alleged Spoofing Episode occurred in the last hour of trading and

asks the Court to infer that the effects of spoofing lasted the entire hour. But as in *Phunware*—a mirror image of this case, with the same plaintiff’s counsel recycling the same conclusory allegations—NWBO pleads a spoofing scheme premised on profiting from rapid reversions in an efficient market, the “very crux” of which is “buy low (at an artificially depressed price), sell high (after the price has reverted to its market level).” R&R at 76. As Judge Ho explained, allegations of prices reverting “only seconds” after the alleged spoofing episodes are “insufficient to establish harm” to a plaintiff that sold its stock later. *Phunware*, 2024 WL 1465244, at *7. Likewise here, Defendants allegedly spoofed to buy stock low, and then profited by selling after the reversion, seconds or minutes later. As in *Phunware*, NWBO’s own price reversion allegations are fatal to its attempt to plead loss causation under *Gamma Traders*. And as to NWBO’s requested inference, no court has ever found the price impact of spoofing to last an hour, and such a finding would be incompatible with the uniform recognition by courts, academics, and prosecutors that spoofing’s price impact is measured in seconds.

Even if the Court were to infer that the effects of spoofing lasted an entire hour, NWBO still fails to “complete the circle of causation.” R&R at 71. Of the mere 31 alleged Spoofing Episodes within an hour of close on a Pricing Date, NWBO’s own pleading shows its price reverting to or above pre-spoofing levels before the close in 17 episodes. The remaining 14 suffer from fatal deficiencies, such as “Baiting Orders” at better prices than the “Executing Purchase”—the opposite of the alleged spoofing scheme. And the SAC still fails to allege a plausible “formulaic connection” between NWBO’s sale price and the purported spoofing—for example, its Exchange Agreement Sales, supposedly based on a “single formula,” inexplicably return different sale prices based on the same inputs.

NWBO’s claim that spoofing caused a “long-term” “negative price impact” persisting for

“up to sixty (60) trading days” is also irreconcilable with the theory of spoofing this Court credited in its R&R. As Judge Ho explained, persistent price impact is “at odds with the Complaint’s allegations of how Defendant profited from its spoofing activity.” 2024 WL 1465244, at *7. And NWBO does not even attempt to address the fact that its share price *more than doubled* during the Relevant Period—any declines were not the result of fleeting alleged spoofing, but NWBO’s corporate mismanagement, product failures, securities violations, and dilutive share issuances.

NWBO’s failure to adequately allege long-term price impact is independently fatal to its market manipulation claims. Even if this Court were to be the first ever to find that the effects of spoofing last an entire hour (and it should not), none of the 31 Spoofing Episodes within an hour of close on a “Pricing Date” is alleged in the detail required by Rule 9(b), and none of the 16 “example” episodes alleged in the SAC occurred within an hour of closing on a “Pricing Date.” NWBO thus still fails to identify a single alleged Spoofing Episode for which it adequately alleges all elements of an Exchange Act claim, including manipulative acts and loss causation. Permitting NWBO’s expansive claim of routine market activity as unlawful spoofing to proceed on the basis of such conclusory allegations—often pled only in chart form—would undermine the core purpose of the PSLRA: preventing abusive securities fraud actions from “impos[ing] substantial costs on companies ... whose conduct conforms to the law.” *See Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308, 313-14 (2007).

Ultimately, NWBO’s loss causation allegations rest on an irreconcilable contradiction: that the market rapidly assimilated information and corrected artificial prices (when that suits NWBO’s scienter and reliance allegations) but somehow also left manipulated prices uncorrected for hours or days after the spoof orders were cancelled (when that suits NWBO’s loss causation allegations). This is not Schrödinger’s market—NWBO “may not at the same time presume an efficient market

to prove reliance and an inefficient market to prove loss causation.” *Bricklayers & Trowel Trades Int’l Pension Fund v. Credit Suisse First Boston*, 853 F. Supp. 2d 181, 190 (D. Mass. 2012), *aff’d*, 752 F.3d 82 (1st Cir. 2014). Faced with the same paradox, Judge Ho rightly dismissed the complaint in *Phunware*. This Court should do the same here. And because NWBO’s third attempt at pleading fares no better than its last two, the Court should do so with prejudice.

BACKGROUND

I. FACTUAL BACKGROUND

A. The Parties

NWBO is a clinical stage biotechnology company that has not received approval for any product since its founding in 1996. ¶ 2.¹ On December 7, 2016, NWBO’s stock was de-listed from Nasdaq for failure to comply with listing rules;² since that time, NWBO’s stock has traded exclusively “over the counter” (“OTC”). ¶ 15. From January 3, 2005 to December 4, 2017, NWBO’s stock price dropped 97%, from \$9.60 to \$0.26.³ There are no allegations that this collapse was caused by spoofing. Then, during the Relevant Period of December 5, 2017 to August 1, 2022, in which there purportedly *was* ongoing spoofing, ¶ 1, NWBO’s stock price more than doubled, from \$0.26 to \$0.70, R&R at 77. From the end of the Relevant Period to the filing of the SAC, NWBO’s stock price declined 25%, from \$0.70 to \$0.52.⁴ Again, there are no allegations (nor were there ever) that this price drop was attributable to spoofing.

¹ Citations to the Second Amended Complaint are made by reference to the relevant paragraph number therein.

² PR Newswire, NW Bio Announces Decision to Voluntarily Withdraw from Nasdaq Listing and Begin Trading on OTC Market (Dec. 7, 2016), Exhibit 1 to the Declaration of William A. Burck (hereinafter “Ex. ___”). The Court may take judicial notice of each of the publicly available documents cited in this memorandum. *See Blue Tree Hotels Inv. (Can.), Ltd. v. Starwood Hotels & Resorts Worldwide, Inc.*, 369 F.3d 212, 217 (2d Cir. 2004).

³ Ex. 2, NWBO Stock Price History.

⁴ Ex. 2.

Consistent with the above, declines in NWBO's stock price during the Relevant Period generally coincided with negative news about the company.⁵ NWBO also depressed its stock price throughout the Relevant Period by more than *tripling* the number of shares outstanding,⁶ and the SAC omits that NWBO's directors were sued during the Relevant Period for granting themselves 134,575,229 stock options to "offset ... the dilutive effects" of these sales.⁷ Also during the Relevant Period, the SEC imposed a cease-and-desist order against NWBO for repeated violations of the Exchange Act, including its failure to resolve material weaknesses in its internal controls for 12 consecutive years and failure to timely file its Form 10-K for 16 consecutive years.⁸

Defendants are all highly regulated, SEC-registered broker-dealers. ¶¶ 16-37. As broker-dealers, Defendants act on behalf of clients for at least a portion of their trades and rapidly update quotes to adjust to market conditions, manage exposures, and adapt to competing client demands. *See id.*; 15 U.S.C. § 78c(a)(4). Most Defendants are also market makers, and thus are transacting on both sides of the market at all times and frequently place, modify, and cancel orders. ¶¶ 16-37. Cancellations are typical in the modern electronic market, with 95% of placed orders cancelled before execution. *See* R&R at 41.

⁵ For example, NWBO alleges that on May 10, 2022, "the market learned excellent news" regarding NWBO's clinical trial, which "should have caused NWBO's share price to increase, absent manipulation." ¶ 73. However, all contemporaneous reporting on this trial was negative, R&R at 27—such as that NWBO's product "perform[ed] worse than a placebo," Ex. 3, May 10, 2022 StatNews article. The SAC also omits that, on the morning of May 10, NWBO publicly disclosed unusually heavy losses. *See* Ex. 4, NWBO Form 10-Q for the Quarter Ended March 31, 2022.

⁶ NWBO's outstanding share count increased from 315,858,713 shares on November 20, 2017 to 1,052,853,970 shares on November 8, 2022—an increase of 736 million shares. *See* Ex. 5, NWBO Form 10-Q for the Quarter Ended September 30, 2017; Ex. 6, NWBO Form 10-Q for the Quarter Ended September 30, 2022.

⁷ *See* Ex. 7, Am. Compl. ¶ 5, *In re Nw. Biotherapeutics, Inc., S'holder Litig.*, No. 2022-0193 (Del. Ch. Dec. 30, 2022) (ellipsis in original); Ex. 8, Verified Compl., *In re Nw. Biotherapeutics, Inc., S'holder Litig.*, No. 2022-0193 (Del. Ch. Mar. 3, 2022).

⁸ *See* Nw. Biotherapeutics, Inc., Exchange Act Release No. 87281, 2019 WL 5088987 (Oct. 10, 2019).

B. The Alleged Spoofing Scheme

NWBO alleges the seven broker-dealer Defendants separately—with no coordination—engaged in identical “spoofing” schemes targeting NWBO over the exact same five-year period.

¶ 1. According to NWBO, the “Spoofing Episodes” each followed the same pattern:

- *First*, the Defendant allegedly placed “Baiting Orders”—sell-side orders that were “never intended” to be executed, but instead to create “an appearance of a downward trending market.” ¶ 8.⁹ At least some of the “Baiting Orders” were allegedly “parked” behind a lower-priced offer of a single other market participant. *E.g.*, ¶¶ 86, 100. These “Baiting Orders” quickly induced other market participants to enter sell-side orders, purportedly driving down NWBO’s stock price, *e.g.*, ¶¶ 74, 76, and allowing the Defendant to make “Executing Purchases” to acquire shares “below the prevailing best offer,” *e.g.*, ¶¶ 67, 91.
- *Second*, the sell-side “Baiting Orders” “were cancelled ‘immediately after the completion of the[] Executing Purchases.’” R&R at 34 (quoting ¶ 64). The “Baiting Orders” were always cancelled within two minutes of the “Executing Purchase,” “eliminating the artificial sell-side imbalance;” by this time, the Defendant had “dramatically revers[ed]” its market position, now favoring the buy-side. *E.g.*, ¶¶ 88, 116.
- *Finally*, within seconds or minutes of cancelling its “Baiting Orders,” the Defendant “succeeded in selling [NWBO] shares for a profit after prices *rose*.” R&R at 76.

The SAC itself includes only 16 “example” episodes, but NWBO appends as Exhibit 1 a chart purporting to show 2,849 “Spoofing Episodes.” *See* SAC Ex. 1 (ECF 150-1). This barebones exhibit lists only (i) the alleged time, volume, and price of the “Executing Purchase,” (ii) “Best Offer (Calculated),” (iii) volume and price of the “Baiting Orders,” (iv) “Price Decline” formula, and (v) time and price of the “Prior Sale” and/or “Next Sale” by Defendant. *Id.* Exhibit 1 does not include even a suggestion of “parking” or imbalanced activity, or any allegation that Defendants “did not sell any shares” in certain periods, and thus lacks the indicia that transform routine sell orders into “spoofing.” *See* R&R at 33-34. The SAC includes some generalized

⁹ NWBO does not allege the details (price, volume, time, etc.) of *any* purported Baiting Order because, as NWBO admits, what it calls the “Baiting Orders” is simply either (i) the volume of sell-side orders cancelled in the two minutes after the Executing Purchase or (ii) the volume of sell-side orders created in the two minutes prior to the Executing Purchase—whichever happens to be a smaller number. *See* ¶ 84 n.17.

allegations about the Exhibit 1 Spoofing Episodes—for example that “Defendants” submitted larger average sell-side orders during those episodes—that are conclusory and impermissible group pleading and fail to take into account market conditions (for example, if the price of NWBO was declining, it would be unsurprising that sell-side orders were on average larger). ¶¶ 69-70.

C. NWBO’s Stock Sales

NWBO alleges that it sold over 274 million shares of stock during the Relevant Period at purportedly manipulated prices, under its theory that spoofing has “long-term” price impacts lasting “up to sixty (60) trading days.” ¶¶ 288, 314. NWBO further alleges that it sold more than 40 million shares at prices that were “formulaically determined” from NWBO’s closing price on a day on which a “Spoofing Episode” occurred. ¶ 289.¹⁰

NWBO identifies only 31 alleged Spoofing Episodes within an hour of market close across a total of thirteen “Pricing Dates.”¹¹ NWBO’s own exhibits show that, for 17 of these 31 alleged Spoofing Episodes (55%), by the market close, NWBO’s stock price reverted to or above the pre-spoof level. *See infra* at 11-12; *see also* Ex. 9. Contrary to its alleged Spoofing Episodes, the SAC also alleges the price effects of the spoofing “did not fully reverse,” and instead its stock price “stabilized at a depressed level relative to the price that would have existed absent Defendants’ spoofing.” ¶¶ 304, 312. The SAC does not explain why the effects of spoofing are “persistent and long lasting” or how this could be true in light of its allegations that Defendants sold stock after

¹⁰ NWBO alleges that it sold stock based on two different “formulas,” which it refers to as “Cash Stock Sales” and “Exchange Agreement Sales.” ¶ 289. Cash Stock Sales “were executed at the secondary market closing price on a single given date (a ‘Pricing Date’) or at a price equal to the average secondary market closing price of NWBO’s shares over one or more Pricing Dates.” ¶ 290. In Exchange Agreement Sales, NWBO sold shares at prices “determined by a single formula: (a) 85% multiplied by (b) the average of the five lowest closing sale prices of NWBO shares in the last twenty trading days immediately preceding the date of each exchange agreement.” ¶ 297.

¹¹ NWBO’s Exhibit 3 identifies alleged “Pricing Dates” with Spoofing Episodes in the last hour of the trading day. Those 31 Spoofing Episodes can be identified by reference to the “Date” and “Time” columns in Exhibit 1, and are shown in Ex. 9.

the Spoofing Episodes “at prices at or, more frequently, *above* the previously existing best offer.” R&R at 76 (emphasis in original); ¶ 309.

II. THE REPORT & RECOMMENDATION

On December 29, 2023, Magistrate Judge Stein issued the R&R, finding that NWBO failed to plead loss causation. R&R at 1. The R&R rejected NWBO’s long-term price impact claims, explaining that “[t]he FAC itself allege[d] the same reversion of prices to the market-level that typifies spoofing schemes,” which “undermine[d] [NWBO’s] speculative hypothesis that the spoofing had a long-term or persistent price impact.” R&R at 76 (collecting authorities) (quotation marks omitted). With respect to temporal proximity, the R&R found that NWBO could theoretically plead that its sale price was affected by spoofing for “30 instances in which spoofing allegedly occurred within an hour of the close,” but did not determine the issue because NWBO never explained how its “sale prices were ‘formulaically derived’ from the relevant closing prices,” and thus the FAC could not “complete the circle of causation.” *Id.* at 70-72. On February 14, 2024, Judge Woods adopted the R&R in full, dismissing the case and granting NWBO leave to amend. ECF 148. On March 18, 2024, NWBO filed its SAC, which attempted to add loss causation allegations, but otherwise is unchanged from the FAC.

ARGUMENT

I. THE SAC FAILS TO ADEQUATELY ALLEGE LOSS CAUSATION

This Court credited NWBO’s allegations of an efficient market and a spoofing scheme where the spoofer “buy[s] low (at an artificially depressed price), sell[s] high (after the price has reverted to its market level).” R&R at 76. Those allegations—unchanged in the SAC—cannot be reconciled with NWBO’s attempts to plead loss causation under either a “temporal proximity” or “long-term effects” theory. The same is true of NWBO’s alleged “Spoofing Episodes,” which consistently show prices reverting to or above the pre-spoofing level within seconds of the

Defendant’s “Executing Purchase”—long before NWBO’s sale price was determined. Applying the SAC’s own allegations to either loss causation theory, it is clear NWBO suffered no loss.¹²

A. The SAC Fails To Plead Loss Causation On A Temporal Proximity Theory

Under *Gamma Traders*, a plaintiff can plead a “temporal proximity” theory of loss causation by alleging it traded “so close in time to Defendants’ spoofing” that the court can “infer as a matter of common sense that the market prices were artificial” when plaintiff traded. 41 F. 4th at 80-81. Yet *Gamma Traders* does not support an inference that spoofing’s price effects last an hour—an eternity in electronic markets that move in milliseconds—and NWBO’s pleading consistently shows effects lasting mere seconds.

As Judge Ho explained, where a defendant allegedly “‘convert[ed] profits from its spoofing activity to cash’ by selling shares only seconds” after its “Executing Purchase,” the plaintiff failed to “sufficiently plead that the immediate price impact of spoofing” lasted until its sale of stock two hours later. *Phunware*, 2024 WL 1465244, at *7. The SAC likewise alleges that Defendants sold at or above the pre-spoofing prices within seconds of the Spoofing Episodes, and indeed, the spoofing theory that Judge Ho relied on in *Phunware* was copied-and-pasted from NWBO’s FAC. *See, e.g.*, ¶ 89 (alleging Defendant’s sales permitted it to “*convert profits from its spoofing activity to cash.*” (emphasis added)).

NWBO’s own allegations, the uniform findings of courts and academics, the prosecution of spoofing cases by the government, and the “buy low, sell high” scheme credited by this Court each foreclose an inference that spoofing’s effects last for an entire hour. The only reasonable inference to be drawn from NWBO’s own allegations—the sine qua non of the purported

¹² The Second Circuit has not decided whether the Rule 9(b) standard applies to loss causation, *Phunware*, 2024 WL 1465244, at *6; because NWBO’s allegations fail under both standards, Defendants apply the Rule 8 standard here.

scheme—is that spoofing’s effects last seconds.¹³ The SAC should be dismissed because it does not allege spoofing close enough in time to the close on any “Pricing Date” used to determine NWBO’s sale price.

1. This Court Found That NWBO’s Stock Trades In An Efficient Market, Where Prices Revert As Soon As The Alleged Manipulation Ceases

The Court found that NWBO pled reliance by “plausibly alleg[ing] that it ‘relied on an assumption of an efficient market free of manipulation.’” R&R at 79 (quoting *Set Cap. LLC v. Credit Suisse Grp. AG*, 996 F.3d 64, 76 (2d Cir. 2021)). If the market for NWBO stock “promptly digested current information regarding NWBO from all publicly available sources and reflected such information in the price of NWBO’s shares” as alleged, ¶¶ 331-32, then any price impact would have dissipated promptly after the “Baiting Orders” were cancelled, *see Gruntal & Co. v. San Diego Bancorp*, 901 F. Supp. 607, 617 (S.D.N.Y. 1995) (in an efficient market, once manipulation ceases, “the market thereafter corrects the price of the shares.”). This rapid correction is particularly acute in modern electronic markets, where prices respond to new information within milliseconds or seconds.¹⁴ In an efficient market, the alleged spoofing would cause mispricing for seconds at most, not the hours or days NWBO claims.

¹³ Although both the R&R’s findings and subsequent authority refute an inference that the effects of spoofing could last for up to an hour, *see, e.g.*, R&R at 76; *Phunware*, 2024 WL 1465244, at *7, to the extent the Court believes that it already determined that issue, it can properly “reconsider its own decisions prior to final judgment,” *see, e.g.*, *Maraschiello v. City of Buffalo Police Dep’t*, 709 F.3d 87, 97 (2d Cir. 2013).

¹⁴ *See, e.g.*, von Beschwitz, Bastian, et al., “First to ‘read’ the news: News analytics and algorithmic trading,” 2020, *The Review of Asset Pricing Studies* 10.1: 122-178, 130 (“A large part of the reaction happens in the first 5 seconds.”); *see also* Chordia, Tarun, et al., “Rent Seeking by Low-Latency Traders: Evidence from Trading on Macroeconomic Announcements,” 2018, *The Review of Financial Studies*, 31(12), pp. 4650 (“Prices ... respond to macroeconomic announcement surprises within five milliseconds.”).

2. This Court Relied On Allegations That NWBO's Stock Price Reverted Immediately After The "Executing Purchase"

NWBO's own allegations demonstrate that its prolonged price impact theory is not just implausible, but impossible. The alleged scheme hinges on Defendants buying at "depressed" prices and then selling shares for a profit seconds or minutes after cancelling their manipulative orders. R&R at 76; *e.g.*, SAC ¶¶ 89, 103. Specifically, NWBO alleges Defendants began cancelling the "Baiting Orders" within milliseconds or seconds of the "Executing Purchase," "eliminating the artificial sell-side imbalance" within 120 seconds of that purchase. *E.g.*, ¶¶ 102, 260. By then, the Defendant had "dramatically revers[ed]" to the buy-side and sold within minutes of the "Executing Purchase," almost always above the pre-spoofing price. *E.g.*, ¶¶ 88-89.

Take, for example, the alleged February 25, 2021 Spoofing Episode in which a Defendant made an Executing Purchase at 3:58:35 PM at \$1.40 per share, below the \$1.41 best offer. SAC Ex. 1 at 177; R&R at 68-69. Just 20 seconds later, the Defendant allegedly sold at \$1.42, above the pre-spoofing price. SAC Ex. 1 at 177. Or take the alleged April 1, 2021 Spoofing Episode in which a Defendant allegedly made an Executing Purchase at 3:22:04 PM at \$1.37 per share, below the \$1.39 best offer and sold six seconds later at the \$1.39 pre-spoofing price. *Id.* at 188.



In 17 of 31 (55%) of the “last hour” Spoofing Episodes and 14 of 16 (88%) of the “example” episodes, NWBO specifically alleges price reversion to or above the pre-spoofing level before the close. Rapid reversions within seconds or minutes clearly “point in the opposite direction” of an inference that spoofing’s effects lasted an entire hour. *Phunware*, 2024 WL 1465244, at *7.¹⁵

3. Courts, Academics, And Criminal Prosecutions Confirm That Spoofing’s Effects Are Fleeting

No court has ever found spoofing’s impact lasts more than seconds, let alone an hour. The reason is simple: “[m]anipulative trading strategies like ‘spoofing’ ... depend for their profitability on a reversion of prices to the market-level, meaning that the period of artificiality may be brief.” *In re Merrill, Bofa, & Morgan Stanley Spoofing Litig.*, 2021 WL 827190, at *13 (S.D.N.Y. Mar. 4, 2021), *aff’d sub nom. Gamma Traders*, 41 F.4th 71 (quoting *In re London Silver Fixing, Ltd., Antitrust Litig.*, 332 F. Supp. 3d 885, 923 (S.D.N.Y. 2018)); *see also London Silver*, 332 F. Supp. 3d at 899 (“The profitability of [spoofing] is dependent on a reversion in prices, which is inconsistent with a conspiracy persistently to depress [] prices”).

Courts consistently reject claims of enduring impact, holding that “even thousands of fraudulent spoofs whose effect lasted only a matter of seconds” cannot support an inference of lasting price impact from spoofing. *In re Merrill*, 2021 WL 827190, at *13.; *see also In re London Silver*, 332 F. Supp. 3d at 899 (“prices will revert to normal post-manipulation”).¹⁶ And in

¹⁵ None of NWBO’s 16 “example” episodes occurred in the last hour of trading on a “Pricing Date,” and they are therefore irrelevant to NWBO’s temporal proximity theory. But those “examples” nonetheless demonstrate the same rapid price reversion that precludes loss causation. For example, on May 10, 2022, a Defendant allegedly made an “Executing Purchase” at 11:27:44 AM at \$0.88 per share, below the prevailing best offer of \$0.90. ¶ 238. The Defendant began cancelling its “Baiting Orders” within 3.177 seconds, “cancelled all of its Baiting Orders” by 11:29:43, and at 11:30:18, sold shares at a price of \$0.93—3 cents higher than the pre-spoofing price. ¶¶ 238-40.

¹⁶ *Harrington Glob. Opportunity Fund, Ltd. v. CIBC World Markets Corp.*, 2023 WL 6316252 (S.D.N.Y. Sept. 28, 2023), is not to the contrary, as that case “did not analyze loss causation under the *Gamma Traders* framework.” R&R at 78. Moreover, the “issue of long-term effects warranted little attention” in *Harrington*, where the plaintiff was a hedge fund that sold throughout the day (unlike NWBO, an issuer that sold only at the closing price), and because in *Harrington* “the price of the supposedly spoofed stock plummeted from \$28.03 to \$3.13 over the ten-month relevant period, whereas ... NWBO’s share price more than doubled over the Relevant Period.” *Id.*

Phunware, with substantively identical reversion allegations, the court found they suggested “a much shorter rebound period.” 2024 WL 1465244, at *7. Lest there be any doubt, the *Phunware* plaintiff’s proposed amended complaint’s temporal proximity chart does not even attempt to allege loss causation for plaintiff’s sales more than five minutes after the alleged “Executing Purchase.” See Proposed First Am. Compl. ¶¶ 118-19, No. 23-cv-06426 (S.D.N.Y. Apr. 17, 2024), ECF 31-3 (hereinafter “*Phunware* Am. Compl.”).

Academics uniformly conclude that spoofing’s price effects are “very brief”—“so brief as to have no real economic efficiency implications.”¹⁷ In modern markets, “brief” means seconds or less. See, e.g., Decl. of Jeremy Cusimano at 7, *United States v. Nowak*, No. 19-cr-669 (N.D. Ill. Apr. 10, 2023), ECF 867-2 (explaining that “market imbalances purportedly caused by [] alleged spoof orders resolve within 3.2 seconds” and disputing the government’s position that losses should be calculated “for up to 82.3 seconds”). Spoofing literature shows the market reacts within 13 seconds on average,¹⁸ and focuses on the potential harm to market makers, like Defendants, who trade at high frequencies to fulfill the orders of market participants.¹⁹

The government’s spoofing prosecutions underscore that NWBO cannot plead loss causation. Applying a methodology NWBO’s counsel themselves call “the methodology utilized by the government and accepted by the courts to analyze loss causation in spoofing cases,” *Phunware* Am. Compl. ¶ 154 n.35, the government has sought restitution only on behalf of

¹⁷ See, e.g., Merritt B. Fox et al., *Spoofing and Its Regulation*, 2021 COLUM. BUS. L. REV. 1244, 1288 (2021); Eun Jung Lee et al., *Microstructure-Based Manipulation: Strategic Behavior and Performance of Spoofing Traders*, 16 J. OF FIN. Mkts. 227, 242 (2013) (“[T]he effect of spoofing-buy orders is short-lived”).

¹⁸ See Nikolaus Hautsch & Ruihong Huang, *The market impact of a limit order*, 36 J. OF ECON. DYNAMICS & CONTROL 501, 511 (2012).

¹⁹ See, e.g., *Spoofing and Its Regulation* at pp. 1282 and 1317-1318 (“[I]t is liquidity suppliers who are induced into loss-resulting action by the quotes introduced by a spoofer... As we saw earlier, in the Atlee example, only the liquidity suppliers, no one else, were hurt by the spoof. As a result, there would be no basis for a damages action by anyone under either cause of action other than by these liquidity suppliers....”).

participants that *transacted* “while the Defendants’ Spoof Orders were active,” Decl. of Kumar Venkataraman ¶ 13, *Nowak*, No. 19-cr-669 (N.D. Ill. Dec. 22, 2022), ECF 828-3 (emphasis added); *see also* Order at 21-23, *United States v. Bases*, No. 18-cr-48 (N.D. Ill. Mar. 6, 2023), ECF 734 (same). The government’s expert explained that “approximately 99% of affected trades and 99% of the unadjusted market loss occurs within the first five seconds after the placement of the Spoof Order ... and practically all of the unadjusted market loss occurs within the first thirty seconds.” *Id.* (order accepting government expert’s loss calculation methodology). No restitution was sought (nor was evidence adduced) for claimed losses once the spoof offers were cancelled—much less an hour afterwards.

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The only plausible inferences that can be drawn from NWBO’s pleading are that spoofing’s price effects lasted:

- ***Only while the “Baiting Orders” were active:*** as per “the methodology utilized by the government and accepted by the courts.” *See supra* at 13.
- ***One second:*** as the SAC alleges prices fully reverted within one second of the Executing Purchases, when the Defendants sold at a profit. *See* SAC Ex. 1 at 119 (“Executing Purchase” on October 14, 2021 at 3:09:30, price alleged to have reverted by 3:09:31).²⁰
- ***13 seconds:*** according to academic literature the SAC relies on. *See supra* at 13 & n.18.
- ***120 seconds (at most):*** as the SAC alleges that in each of the “example episodes” that Defendant cancelled all Baiting Orders and “eliminat[ed] the artificial sell-side imbalance” within 120 seconds of the “Executing Purchase.” *See, e.g.,* ¶¶ 87-88, 101-02.

Under any plausible inference drawn from the SAC, it is “common sense” that spoofing’s impact is measured in seconds, not hours. *Gamma Traders*, 41 F.4th at 80. An issuer like NWBO that sold at the market close price, after the alleged spoofing, does not suffer harm. ¶ 289. Indeed,

²⁰ In fact, NWBO alleges reversion to the pre-spoofing level in *less than one second*. *See, e.g.,* SAC Ex. 1 at 12.

NWBO's own allegations show that, under any of these temporal inferences, its sale prices were determined well after any spoofing impact had dissipated, and that it therefore suffered no loss.²¹

B. The SAC Fails To Adequately Allege Long-Term Price Impact

Faced with its pleaded theory that spoofing's effects last mere seconds, NWBO resorts to conclusory theories in an attempt to support a "cumulative effect" lasting months or even years.

¶¶ 309, 314. NWBO's long-term theory is entirely unsupported by fact, and is irreconcilable with:

- NWBO's own Spoofing Episodes, showing prices reverting to or above pre-spoofing levels before market close in 1,867 of 2,849 alleged Episodes (66%);²²
- "NWBO's share price more than doubl[ing] over the Relevant Period," R&R at 77;
- The very nature of spoofing, which "depend[s] for [its] profitability on a reversion of prices to the market level," *id.* at 74;
- The efficient market principles this Court credited in finding NWBO adequately pled reliance, *id.* at 84; and
- The uniform finding of courts and academics that spoofing's effects lasts seconds—not hours, days, or months, R&R at 76-77; *supra* at 12-13.

The SAC is also replete with examples of dramatic price increases on days with alleged spoofing, refuting any "cumulative effect." For example, on October 12, 2020, a day with 28 alleged Spoofing Episodes, NWBO's "Best Offer" rose 19%, from \$0.91 to \$1.08.²³ To the extent NWBO's stock price declined at times, the far more plausible explanations are NWBO's mismanagement, product failures, securities violations, and dilutive share issuances. *Supra* at 4-5.

Under *Gamma Traders*, a "long-term effects" theory requires "a factual basis that would

²¹ Only one Spoofing Episode occurred within 120 seconds of close and on a "Pricing Date" (February 25, 2021), and this Episode specifically alleges reversion above the pre-spoofing level before close. *Supra* at 11; *infra* at 21.

²² 14 of the 16 "example" episodes show the same reversion to or above the pre-spoofing price before market close.

²³ See SAC Ex. 1 at 1-2, 14-15, 72-73, 204. Similarly, on September 2, 2020, the "Best Offer" climbed 40% despite 15 alleged Spoofing Episodes, *id.* at 11-12, 60, and on October 22, 2020, it increased 8% despite 44 claimed Episodes, *id.* at 3, 25-27, 64, 74, 206. NWBO's 78% decline on May 10, 2022 is not to the contrary, as all news that day was negative. See *supra* at 4 & n.5; see also *In re Flag Telecom Holdings, Ltd. Sec. Litig.*, 574 F.3d 29, 36 (2nd Cir. 2009) (plaintiffs must disaggregate losses "caused by ... firm-specific facts, conditions, or other events").

justify an inference” that the price was “still artificial” when plaintiff traded. R&R at 78. The SAC pleads no such facts.

1. The SAC’s “Partial Reversion” Assertions Fail To Plead Facts And Are Contradicted By NWBO’s Own Allegations

NWBO’s “partial reversion” theory posits that after each alleged Spoofing Episode, prices rebounded incompletely, with some lingering depressive effects. ¶ 312. NWBO never explains *why* this would be, relying instead on an unexplained chart supposedly showing “the average price impact of Spoofing Episodes over the minutes following each Spoofing Episode.” ¶ 311.²⁴ NWBO’s theory is readily rejected as both speculative and squarely contradicted by the SAC itself.

First, the “partial reversion” theory and chart cannot be reconciled with the SAC, which alleges that 65% of the Spoofing Episodes involved a “Next Sale” at or above the pre-spoofing price before market close. Yet NWBO’s scatter plot, ¶ 311, shows NWBO’s price *never reverting to the pre-spoofing price*—this more than strains credulity, it raises serious questions about NWBO’s good faith pleading. Nor does the chart even show “partial reversion,” which would involve the price reverting above the 0-minute mark. The SAC also repeatedly alleges that any artificial sell-side imbalance was eliminated once the Defendant cancelled its Baiting Orders (often within milliseconds or seconds), with the Defendant then “dramatically revers[ing]” to the buy side. *E.g.*, ¶¶ 64, 88. NWBO cannot (and does not try to) reconcile these allegations with its theory of prolonged downward pressure, as depicted in its mysterious chart. ¶ 311. Indeed, if NWBO’s price continued decreasing after the alleged Spoofing Episodes, the spoofers would have lost money.

²⁴ The SAC’s comparison of NWBO’s daily returns and two indices are irrelevant and misleading. ¶¶ 311-12. The SAC does not specify the inputs or methodology, nor does it attempt to explain how a purported statistical relationship between the returns of NWBO and market indices establishes persistent price impact from spoofing. At most, NWBO asserts that an unspecified number of trades correlated with the indices at a level of around 0.43, ¶ 311 n.65, but a correlation coefficient below 0.7 is considered weak, *e.g.*, *Lucas v. Townsend*, 967 F.2d 549, 552 (11th Cir. 1992).

Second, the chart’s price movements bear no resemblance to an efficient market. ¶ 332. NWBO’s chart careens from steep declines 70 minutes post-Episode to sudden later spikes and renewed plunges in a seemingly arbitrary 20% intraday range. ¶ 311. But in an efficient market, new information, including the cancellation of manipulative orders, is swiftly incorporated into share prices. Prices do not languish, spike or plunge based on stale hours-old information. NWBO cannot invoke an efficient market to establish reliance and then jettison it for loss causation.

Finally, NWBO identifies no connection between the price movements depicted in the chart and the alleged spoofing. ¶ 311. NWBO never explains why a cancelled order lasting mere seconds could cause a 17% drop over hours, much less in the whipsawing pattern depicted. NWBO’s “partial reversion” theory is directly contrary to NWBO’s own data and theory of the case. Absent facts connecting fleeting alleged spoofing to prolonged price declines, NWBO’s theory collapses under the weight of its own inconsistencies.

2. NWBO’s Citations To The Milgrom Report Remain Irrelevant

Unable to identify any spoofing literature supporting its theory, NWBO points to an expert report in an unrelated price-fixing case (the “Milgrom Report”) for the generic (and misleading)²⁵ proposition that “manipulative trading like spoofing can cause a permanent price impact.” ¶ 326. NWBO’s reliance on the Milgrom Report only underscores the deficiency of its pleading.

As this Court explained, the Milgrom Report does not concern spoofing, but a distinct form of manipulative conduct—fixing the ISDAfix benchmark interest rate—which “may have a ‘permanent price impact’” in ways that “does not justify a reasonable inference that *spoofing* has such an impact.” R&R at 73-74 (emphasis in original); *accord Phunware*, 2024 WL 1465244, at

²⁵ The SAC suggests that “permanent price impact” and “long-term effects” are synonymous, ¶¶ 315-16, but as this Court explained, due to the different meanings, one “says nothing” about the other, R&R at 75 n.32.

*7 (“[T]he relevance of Prof. Milgrom’s report is minimal in the context of spoofing”). *Gamma Traders* specifically rejected applying price-fixing analysis to spoofing, deeming it “misplaced” because “price-fixing behavior - unlike spoofing - results in harms to all market participants, without the possibility of some market participants inadvertently benefitting from the illegal conduct.” 41 F.4th at 79. NWBO attempts to sidestep this distinction by asserting the Milgrom Report “discusses the extensive economic literature establishing that the price impact of *all* forms of trade-based manipulation, including spoofing, is not likely to fully reverse,” ¶ 317, but this is false—the Report says nothing about spoofing, *cf.* R&R at 73. Notably, the SAC cites no scholarship *about spoofing* supporting persistent price impact, nor could it—because that is not how spoofing works. *See, e.g.,* ¶ 328 & nn.77-78.

3. ***NWBO’s Reliance On Irrelevant And Methodologically Flawed “Investor Sentiment” Analysis Highlights Its Pleading Deficiency***

Scraping the bottom of the “evidentiary” barrel, NWBO turns to anonymous posts on an online message board, InvestorsHub (“iHub”), as supposed proof Defendants’ alleged spoofing “cut off” positive investor sentiment, causing long-term price effects. ¶¶ 323-25. This argument boils down to the conclusory claim that NWBO’s stock price would have been higher “but for” the purported spoofing and is triply flawed.

First, the iHub posts are untethered from any well-pled facts about the alleged spoofing or price impact. The SAC does not explain how unspecified “discussion” about NWBO on an internet message board shows—or even relates to—artificial pricing from spoofing, or how it would have “ris[en] even further” “but for” spoofing. ¶ 325. The Court cannot make that speculative leap without factual allegations to bridge the gap. *See, e.g.,* R&R at 76; *First Nationwide Bank v. Gelt Funding Corp.*, 27 F.3d 763, 771 (2d Cir. 1994) (“In the absence of a factual basis underlying [plaintiff’s valuation analyses], we cannot accept its allegation as fact.”).

Second, NWBO’s suggestion that positive iHub posts reliably evidence “investor enthusiasm” ignores its own pleading, which highlights how such posts are rife with “false” and “misleading” information. *See* ¶ 323 (citing complaints alleging iHub is a vehicle for fraudsters to “disseminate false, positive news” and make “materially false and misleading” claims). The SAC itself alleges that iHub is used for pump-and-dump schemes to display false and misleading “positive” messaging that does not accurately reflect sentiment, contradicting its own theory.

Finally, NWBO’s purported sentiment analysis methodology is junk science. NWBO allegedly downloaded over 235,000 iHub posts and fed them into a canned “dictionary” of words deemed positive or negative in SEC filings decades ago. *See* ¶¶ 323-24 & n.74 (*citing* Tim Loughran, When Is a Liability Not a Liability? Textual Analysis, Dictionaries, and 10-Ks, 66 J. Fin. 35 (2011)). But the paper’s own authors warn that whether their “results hold for samples beyond 10-Ks is an important question” they did not resolve. *See* Loughran, at 45. At a minimum, NWBO needs to plead facts justifying its contrived application of the methodology. It does not.

4. *The SAC’s Cherry-Picked And Inapposite Statistics Cannot Manufacture Persistent Price Impact*

In a last-ditch effort to establish loss causation, the SAC offers disconnected statistical observations untethered from facts. For example, NWBO asserts that “[t]he total share volume of sell-side Baiting Orders exceeded the share volume of buy-side Executing Purchases by over 57%,” supposedly causing “asymmetric price impact.” ¶ 327. But this is comparing apples to oranges—*unexecuted* sell-side orders and *executed* buy-side orders. Given that nearly all orders are cancelled prior to execution, *see* R&R at 41, it is entirely unsurprising that there would be more purported “Baiting Orders” than “Executing Purchases.” Nor is it in any way suggestive of long-term price impact: *Gamma Traders* involved far more asymmetrical trading allegations—sell-side baiting orders exceeding buy-side executing purchases by up to 1,000% (vs. NWBO’s alleged

57%)—and held that asymmetry was insufficient to plead long-term effects.²⁶ Just like the plaintiff in *Gamma Traders*, NWBO fails to plead facts establishing long-term impact.

NWBO’s focus on sell-side Baiting Orders over Executing Purchases also ignores Defendants’ alleged “dramatic revers[als]” to displaying *buy-side* orders. *See, e.g.*, ¶ 88. While NWBO does not allege that these buy-side positions were part of the spoofing scheme (because the spoofing would then inure to the benefit of NWBO, a seller), it cannot disregard them to attempt to plead loss causation. Moreover, the statistical comparisons are unlinked to alleged spoofing on any “Pricing Dates.” *See* ¶¶ 289-90, 297. Absent facts tying the alleged asymmetries to sales, NWBO fails to “bridge the gap” between the scheme and its claimed injury.

II. EVEN IF THE PRICE EFFECTS OF SPOOFING LASTED AN ENTIRE HOUR, THE SAC WOULD STILL FAIL TO ALLEGE LOSS CAUSATION

Even if the Court found that spoofing’s effects lasted for an entire hour, the SAC would still fail to plead loss causation because (i) its own alleged Spoofing Episodes show its stock price reverting prior to close, (ii) its alleged Spoofing Episodes contain facial deficiencies, and (iii) its new “formulas” cannot “complete the circle of causation.” *See* R&R at 71.

A. NWBO Pleads That Its Sale Prices Were Unaffected By Spoofing

Of the 2,849 alleged Spoofing Episodes in Exhibit 1, NWBO identifies just 31 that occurred within an hour of close on a “Pricing Date.” *See* SAC Exs. 1, 3. But even these 31 episodes do not withstand scrutiny. Tellingly, for 17 of the 31, NWBO’s own exhibits show its stock price reverting to or above pre-manipulation levels before the market close.²⁷ For example,

²⁶ *See, e.g.*, First Am. Compl. ¶¶ 48, 56, *In re Merrill*, No. 19-cv-6002 (S.D.N.Y. Mar. 9, 2020), ECF 51 (alleging, *e.g.*, that defendant placed an executing order to buy 50 contracts and three baiting orders to sell a total of 550 contracts); *In re Merrill*, 2021 WL 827190, at *13 (holding these allegations insufficient).

²⁷ Specifically, according to NWBO’s own data, the price of NWBO’s stock reverted to or above the prior market level in (i) seven of the October 12, 2020 “last hour” Spoofing Episodes, (ii) the December 22, 2020 “last hour” Episode, (iii) two January 26, 2021 “last hour” Episodes, (iv) two February 25, 2021 “last hour” Episodes, and (v) four April 1, 2021 “last hour” Episodes. *See* Ex. 9.

on October 12, 2020 (a “Pricing Date”), Citadel Securities allegedly made an “Executing Purchase” at 3:50:17 PM at \$1.07, below the \$1.08 best offer. SAC Ex. 1 at 15. But NWBO also alleges that its stock (i) rebounded to \$1.08 by 3:57:55 PM, and (ii) closed at \$1.12. *Id.*; ECF 150-4 at 1. Thus, NWBO offers no facts to show the purported spoofing had any impact on NWBO’s sale price, which was 3.7% higher at closing than at the time of the alleged spoofing.

The remaining 14 “last hour” spoofing episodes all suffer their own deficiencies that preclude an inference that they affected NWBO’s sale price.

- The five Spoofing Episodes on December 10, 2021 contain no “Next Sale” by the Defendant. *See* SAC Ex. 1 at 6, 53, 79. NWBO “never alleges that Defendants engaged in [] short sales,” R&R at 11 n.9; and there was no mechanism to profit from these purported “Spoofing Episodes,” so they are not spoofing episodes at all, *see* R&R at 54.
- The Spoofing Episode that allegedly took place on October 27, 2020 is riddled with defects. The “Baiting Orders” are at a lower (better) price than the “Executing Purchase,” and thus could not have driven down the price to enable that alleged purchase. *See* SAC Ex. 1 at 85. Less than two minutes before the “Executing Purchase,” the Defendant allegedly sold shares (“Prior Sale”) at the same price as the “Baiting Orders” (which purportedly were sell-side orders “never intended to be executed”). *See id.* Finally, this Defendant’s alleged next sale was at a *loss*. *See id.* (“Next Sale” on October 28, 2021 at 9:34:01 at \$1.04).
- Four Spoofing Episodes are alleged to have a larger volume of “Executing Purchases” than the volume of “Baiting Orders”—which would have increased NWBO’s stock price more than it was allegedly driven down. *See* SAC Ex. 1 at 8, 14, 15, 172.
- The January 26, 2021 Spoofing Episode is not alleged to have occurred on a “Pricing Date” tied to either a Cash Stock Sale or an Exchange Agreement Sale. *See* ECF 150-4-7.
- For the three remaining Spoofing Episodes—on August 1, 2018, March 28, 2019, and October 14, 2020—publicly-available stock price charts show NWBO’s price reverting to or above the pre-spoofing level before the close. *See* Ex. 10.²⁸

Simply put, the SAC does not identify a single viable Spoofing Episode in the final hour of a Pricing Date that actually impacted the closing price, and NWBO thus cannot establish loss.

²⁸ Ex. 10 shows NWBO’s stock price charts as made publicly-available by Bloomberg. Courts may take judicial notice of “readily ascertainable and understandable price data” for the truth of its contents. R&R at 26-27; *Ganino v. Citizens Utils. Co.*, 228 F.3d 154, 166 n.8 (2d Cir. 2000).

B. NWBO's Formulas Fail To "Complete The Circle Of Causation"

The purported sale "formulas" provided in the SAC do not plausibly connect NWBO's sale prices to the purported spoofing. Take, for example, NWBO's October 12, 2020 Cash Stock Sale, which accounts for 86% of NWBO's stock sold on the 13 "Pricing Dates" with alleged spoofing in the final hour. This sale allegedly used a ten-day average of closing prices. ¶ 289; ECF 150-4 at 1. Three of those "Pricing Dates" involved Spoofing Episodes in the hour before close, which allegedly depressed NWBO's stock price by \$0.025, \$0.01, and \$0.01. SAC Ex. 1 at 14-15, 172. Using the figures in the SAC, if the three allegedly "depressed" closing prices were replaced with the alleged pre-manipulation prices, NWBO would have sold its shares *for the same* \$0.82 price. Rather than "complete the circle of causation," this demonstrates NWBO suffered no loss.²⁹

NWBO's "Exchange Agreement Sales" allegations are even more deficient. Those sales were supposedly based on a "single formula" averaging "the five lowest closing sale prices of NWBO shares in the last twenty trading days." ¶ 297. But the SAC fails to provide the closing prices or "Pricing Dates" involved, making it impossible to assess how the alleged spoofing impacted the sale prices. Instead, NWBO asserts that "a decline in any component of an average mathematically leads to a decline in the average." ¶¶ 290, 297. This is wrong for the reasons above concerning Cash Stock Sales, and because if the price on a "Pricing Date" was the fifth lowest price or lower, it would not affect NWBO's sale price at all. Further undermining NWBO's Exchange Agreement Sales theory, Exhibit 6 inexplicably shows *different* sale prices on the same day for transactions that were supposedly based on the *same* "single formula."³⁰ ¶ 297.

²⁹ It is reasonable to infer that NWBO's Exchange Agreement Sales suffer from the same defect; the SAC does not identify the closing price of *any* of the twenty days that were used in determining the price for those sales.

³⁰ See, e.g., ECF 150-6 at 2-4 (sales on November 10, 2020 at different prices); *id.* at 5 (sales on January 15, 2021 at different prices). The "true-up," under which NWBO used "Pricing Dates *after* the transaction date," ¶ 299 n.63, does not explain this discrepancy, as Exhibit 3 lists different prices for sales using *identical* Pricing Dates.

In sum, the SAC does not plausibly allege any “formulaic connection” between the supposed spoofing and NWBO’s sale price. The few episodes that occurred in the final hour of a “Pricing Date” did not affect NWBO’s sale price because the price reverted or because they are otherwise deficient. And NWBO’s pricing “formulas” show that the alleged connection between the Spoofing Episodes, its closing prices, and its actual sales are far too attenuated and still fail to adequately plead “how [NWBO’s] sale prices were ‘formulaically derived’ from the relevant closing prices.” R&R at 71-72.

III. THE SAC SHOULD BE DISMISSED BECAUSE NO SPOOFING EPISODE SATISFIES THE ELEMENTS OF A MARKET MANIPULATION CLAIM

Even if the SAC could plead loss causation for 31 Spoofing Episodes under a “temporal proximity” theory, it fails to state a claim for market manipulation because without “long-term price impact,” no alleged Spoofing Episode satisfies all of the elements of a market manipulation claim, particularly given the “heightened” pleading requirements imposed on such claims.³¹ *ATSI Commc’ns, Inc. v. Shaar Fund, Ltd.*, 493 F.3d 87, 101-02 (2d Cir. 2007).

The Court previously found that the 16 “example” spoofing incidents pled in the FAC were sufficiently particularized to allege “manipulative acts.” R&R at 33-34, 43-46. But NWBO does not allege that any of those incidents occurred within an hour of the close on a “Pricing Date”—the timeframe it suggests, solely through the use of asterisks, *see* ¶ 307, is close enough to establish loss causation on a “temporal proximity” basis. Conversely, the Spoofing Episodes that did allegedly occur in the final hour of a “Pricing Date” are pled only in summary form. SAC Ex. 1.

³¹ The elements of a claim for market manipulation under Section 10(b) are “(1) manipulative acts; (2) damage (3) caused by reliance on an assumption of an efficient market free of manipulation; (4) scienter; (5) in connection with the purchase or sale of securities; (6) furthered by the defendant’s use of the mails or any facility of a national securities exchange.” *ATSI*, 493 F.3d at 101. “The analysis of claims under Section 9(a) ‘closely parallels’ the analysis of claims under Section 10(b),” *Stone Family Tr. v. Credit Suisse AG*, 2022 WL 954743, at *6 (S.D.N.Y. Mar. 30, 2022), and the “elements of common-law fraud are ‘essentially the same’ as those for a violation of Section 10(b),” *Cohen v. Stevanovich*, 722 F. Supp. 2d 416, 436 (S.D.N.Y. 2010).

None contains the “indicia” of spoofing—such as “parking,” rapid order cancellations, or order imbalances—the Court relied on in finding the “example” episodes adequately particularized:

| | Manipulative Acts | | | | Loss Causation |
|-----------------------------|---------------------------------------|--|--|---|--|
| | Alleged “parking” of “Baiting Orders” | Alleged immediate cancellation of “Baiting Orders” | Alleged imbalance in sell-side and buy-side activity | Alleged no sales during “Baiting Periods” | Alleged spoofing within an hour of close and on a “Pricing Date” |
| Example Episodes | ✓ | ✓ | ✓ | ✓ | 0 Episodes |
| Exhibit 1 Spoofing Episodes | ✗ | ✗ | ✗ | ✗ | 31 Episodes |

Courts routinely dismiss securities fraud claims that premise liability on multiple misstatements or omissions but fail to identify any single statement that satisfies all elements of the claim. *See, e.g., Parchmann v. MetLife*, 2021 WL 320051, at *4-6 (E.D.N.Y. Jan. 11, 2021) (dismissing securities fraud complaint premised on multiple alleged misstatements and omissions because none satisfied all elements of a claim), *aff’d sub nom. KBC Asset Mgmt. NV v. MetLife, Inc.*, 2022 WL 480213 (2d Cir. Feb. 17, 2022). The same is true here; a fatal defect in NWBO’s claims is the complete absence of even a single episode that satisfies all elements of a market manipulation claim. Without any well-pled allegations tying specific manipulative acts to its stock sales, NWBO’s securities claims fail as a matter of law.

IV. THE SAC SHOULD BE DISMISSED BECAUSE ITS PERSISTENT PRICE IMPACT CLAIMS FATALLY UNDERMINE RELIANCE AND SCIENTER

NWBO’s “persistent price impact” allegations are not only implausible, but also fatally undermine two other essential elements of its claims: reliance and scienter. These internal contradictions in the SAC independently warrant dismissal.

First, the SAC’s persistent price impact allegations, if credited, would refute its conclusory market efficiency allegations. The R&R explained that the FAC’s efficiency allegations were “largely conclusory,” yet found it “pled enough to satisfy its burden under Rule 8.” R&R at 81-

83. But if NWBO's price remained below the pre-spoofing level after the spoofing ceased as now alleged, ¶ 322, the market did not incorporate "all the available information about the value of a security," and was inefficient, *see Cromer Fin. Ltd. v. Berger*, 205 F.R.D. 113, 130 n.21 (S.D.N.Y. 2001). NWBO "may not at the same time presume an efficient market to prove reliance and an inefficient market to prove loss causation," as this would allow it to "have [its] cake and eat it too." *Bricklayers*, 853 F. Supp. 2d at 190. NWBO must "take the bitter with the sweet, and if [it] chooses to embrace the efficient market theory for purposes of proving one element of a § 10(b) claim, [it] cannot then turn around and contend that the market is not efficient for purposes of proving another element of the very same claim." *Meyer v. Greene*, 710 F.3d 1189, 1198-99 (11th Cir. 2013).

Second, if the spoofing episodes caused a persistent negative price impact, then the spoofers would have lost money. *See, e.g.*, R&R at 44 n.19. Thus, even if NWBO's stock price "partially" reverted after 70 minutes before falling again, *see* ¶ 311, Defendants, who allegedly sold stock seconds or minutes after their "Executing Purchases," would have engaged in an irrational, money-losing scheme that "contradicts the assumption that [defendants] were acting in their own economic self-interest," and "affirmatively refute[s] scienter," *In re Merrill Lynch & Co., Inc. Rsch. Reps. Sec. Litig.*, 272 F. Supp. 2d 243, 263 (S.D.N.Y. 2003).

CONCLUSION

For the reasons set forth above, the SAC should be dismissed with prejudice.

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Respectfully submitted,

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